

REMARKS

Claims 1-16 are pending in the application. Claims 9-12 were rejected under 35 U.S.C. § 112. Claims 1-16 were rejected under 35 U.S.C. § 103(a).

Rejection Under 35 U.S.C. § 112

Claims 9-12 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has responded by amending claims 9-12 to depend from claim 8.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-16 were rejected under 35 U.S.C. §103(a) as being obvious over U. S. Patent Number 6,468,889 issued to Iacoponi et al. on October 22, 2002 in view of U. S. Patent Number 5,395,799 issued to Yu on March 7, 1995 or U. S. Patent Number 6,406,995 issued to Hussein et al. on June 18, 2002 as evidenced by U. S. Patent Number 6,635,185 issued to Demmin on October 21, 2003, and further in view of U. S. Patent Number 6,649,082 issued to Hayasaka et al. on November 18, 2003 or U. S. Patent Number 5,338,394 issued to Fathimulla et al. on August 16, 1994.

Rejection Under Iacoponi, Yu or Hussein, and Demmin

Claims 1-7 and 14-16 were rejected under 35 U.S.C. §103(a) as being obvious over Iacoponi in view Yu or Hussein as evidenced by Demmin.

Applicant has avoided this ground of rejection for the following reasons.

Applicant has canceled claim 2 and amended independent claim 1 to include therein the limitations from claim 2. As a result, applicant asserts that even if it were proper to combine the cited references, the resulting combination would not make obvious applicant's claims. This is because neither Iacoponi nor Yu or Hussein or Demmin teach or suggest applicant's claim 1 limitation, as amended, that now recites, "baking the remaining photoresist layer in order to

harden the remaining photoresist layer, wherein the baking of the remaining photoresist layer comprises a first heating step wherein the remaining photoresist layer is heated at a temperature of about 130°C. to about 135°C. for about one hour, and a second heating step wherein the remaining photoresist layer is heated at a temperature of about 180°C. to about 190°C. for about one hour".

As stated in the Office Action, the Examiner agrees that Iacoponi and Demmin do not teach or suggest this limitation. Moreover, applicant notes that Yu and Hussein do not teach this limitation either. Instead, Yu teaches to bake or harden the photoresist layer at a temperature of 150°C. in a non-oxidizing atmosphere, as stated in column 4, lines 56-59. Hussein teaches that the substrate is baked to harden the remaining photoresist, as stated in column 4, lines 9-10. However, contrary to applicant's claim 1, neither Yu nor Hussein teach or suggest a first heating step wherein the remaining photoresist layer is heated at a temperature of about 130°C. to about 135°C. for about one hour, and a second heating step wherein the remaining photoresist layer is heated at a temperature of about 180°C. to about 190°C. for about one hour, as recited in applicant's claim 1. Thus, Yu and Hussein are missing the baking temperature ranges, time needed for heating, and the two-step heating process elements as recited in applicant's claim 1.

Furthermore, applicant's two-step heating process is non-obvious because superior results are achieved with a two-step heating process in order to avoid thermal shock of the photoresist material, as stated in paragraph 0042 of applicant's specification.

Therefore the combination of Iacoponi with Yu or Hussein as evidenced by Demmin does not teach or suggest all of the limitations in applicant's claim 1, and therefore claim 1 is allowable over the proposed combination. Since claims 3-7 and 14-16 depend from allowable claim 1, these claims are also allowable over the proposed combination.

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Rejection Under Iacoponi, Yu or Hussein, Demmin, and Hayasaka or Fathimulla

Claims 8-13 were rejected under 35 U.S.C. §103(a) as being obvious over Iacoponi in view Yu or Hussein as evidenced by Demmin, and further in view of Hayasaka or Fathimulla.

Applicant respectfully traverses this ground of rejection.

Claims 8-13 depend from independent claim 1. The combination of Iacoponi with Yu or Hussein as evidenced by Demmin does not teach or suggest claim 1, as shown hereinabove. The Office Action has cited Hayasaka and Fathimulla only for their teaching of using etching gas of a mixture of hydrogen, argon, boron trichloride gas, and hydrogen bromide gas for etching semiconductors. Thus, the Office Action seems to indicate, and applicant agrees, that Hayasaka and Fathimulla do not supply the elements of applicant's claim 1 that were shown hereinabove not to be taught by the combination of Iacoponi with Yu or Hussein as evidenced by Demmin.

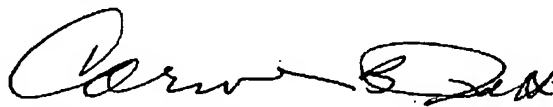
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Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicant's attorney.

Respectfully submitted,



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